

Economia col·laborativa procomuna



Barcelona, El Far, 24 Octubre 2017



Photo: CC0

Garret Hardin: The Tragedy of the Commons (1968)

Recurs d'accès obert
+ actitud agoista
= esgotament del recurs

No es basa en casos reals
sinó en models simulats

No té en compte la
capacitat d'arribar a acords
de regulació d'ús

Font: https://en.wikipedia.org/wiki/Tragedy_of_the_commons

The Tragedy of the Commons

The population problem has no technical solution;
it requires a fundamental extension in morality.

Garrett Hardin

At the end of a thoughtful article on the future of nuclear war, Wiesner and York (1) concluded that: "Both sides in the arms race are . . . confronted by the dilemma of steadily increasing military power and steadily decreasing national security. *It is our considered professional judgment that this dilemma has no technical solution.* If the great powers continue to look for solutions in the area of science and technology only, the result will be to worsen the situation."

I would like to focus your attention not on the subject of the article (national security in a nuclear world) but on the kind of conclusion they reached, namely that there is no technical solution to the problem. An implicit and almost universal assumption of discussions published in professional and semipopular scientific journals is that the problem under discussion has a technical solution. A technical solution may be defined as one that requires a change only in the techniques of the natural sciences, demanding little or nothing in the way of change in human values or ideas of morality.

In our day (though not in earlier times) technical solutions are always welcome. Because of previous failures in prophecy, it takes courage to assert that a desired technical solution is not possible. Wiesner and York exhibited this courage: publishing in a science

journal judgment. . . . Whether they were right or not is not the concern of the present article. Rather, the concern here is with the important concept of a class of human problems which can be called "no technical solution problems," and, more specifically, with the identification and discussion of one of these.

It is easy to show that the class is not a null class. Recall the game of tick-tack-toe. Consider the problem, "How can I win the game of tick-tack-toe?" It is well known that I cannot, if I assume (in keeping with the conventions of game theory) that my opponent understands the game perfectly. Put another way, there is no "technical solution" to the problem. I can win only by giving a radical meaning to the word "win." I can hit my opponent over the head; or I can drug him; or I can falsify the records. Every way in which I "win" involves, in some sense, an abandonment of the game, as we intuitively understand it. (I can also, of course, openly abandon the game—refuse to play it. This is what most adults do.)

The class of "no technical solution problems" has members. My thesis is that the "population problem," as conventionally conceived, is a member of this class. How it is conventionally conceived needs some comment. It is fair to say that most people who anguish over the population problem are trying to find a way to avoid the evils of over-

What Shall We Maximize?

Population, as Malthus said, naturally tends to grow "geometrically," or, as we would now say, exponentially. In a finite world this means that the per capita share of the world's goods must steadily decrease. Is ours a finite world?

A fair defense can be put forward for the view that the world is infinite; or that we do not know that it is not. But, in terms of the practical problems that we must face in the next few generations with the foreseeable technology, it is clear that we will greatly increase human misery if we do not, during the immediate future, assume that the world available to the terrestrial human population is finite. "Space" is no escape (2).

A finite world can support only a finite population; therefore, population growth must eventually equal zero. (The case of perpetual wide fluctuations above and below zero is a trivial variant that need not be discussed.) When this condition is met, what will be the situation of mankind? Specifically, can Bentham's goal of "the greatest good for the greatest number" be realized?

No—for two reasons, each sufficient by itself. The first is a theoretical one. It is not mathematically possible to maximize for two (or more) variables at the same time. This was clearly stated by von Neumann and Morgenstern (3), but the principle is implicit in the theory of partial differential equations, dating back at least to D'Alembert (1717–1783).

The second reason springs directly from biological facts. To live, any organism must have a source of energy (for example, food). This energy is utilized for two purposes: mere maintenance and work. For man, maintenance of life requires about 1600 kilocalories a day ("maintenance calories"). Anything that he does over and above merely staying alive will be defined as work, and is supported by "work calories" which he takes in. Work calories are used not only for what we call work

El procomú és una construcció social sobre un recurs natural o cultural

Els recursos compartits tenen una regulació i uns mecanismes de producció, reproducció, gestió i presa de decisions que crea i modifica la mateixa comunitat

El procomú tradicional pot ser:

Material i limitat:

- > recursos naturals (aigua, pastures, boscos, ...)
- > espais i estris comunals (forn, forja, molí, era, plaça, ...)

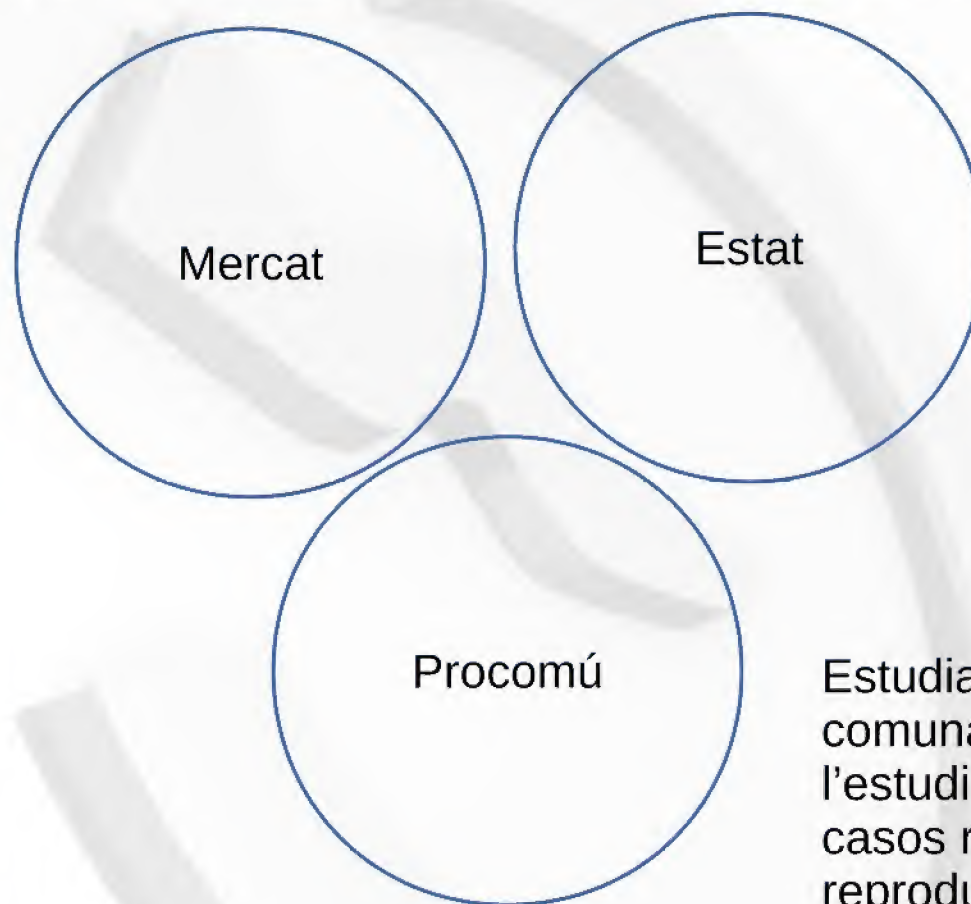
Immaterial i ilimitat:

- > Coneixements i habilitats
- > Llengües, cultura



La regulació depèn de les seves característiques; és de **sentit comú**

Mercat – Estat – Procomú



Estudia la sostenibilitat comunal a partir de l'estudi de cententars de casos reals de producció, reproducció i gestió del procomú

2009, **Elinor Ostrom** rep el Premi Nobel de l'Economia per la seva recerca sobre els “commons”

El procomú*

És un sistema de recursos comunitari caracteritzat per:

- Autogestió (~ governança comunal)
- Pertinença accessible (~ consell obert, assemblea)
- Coneixement *compartit*
- Integrants tenen dret i responsabilitat sobre la (re)producció i l'ús sostenible

(*) profit comú | sinònims: comú, empriu, comunal, béns comuns

Programari lliure i de codi obert*

Quatre Llibertats asseguren el dret a qualsevol usuàri/a de:

0. executar el programa per qualsevol propòsit
1. veure com funciona el programa i adaptar-lo a les necessitats pròpies**
2. redistribuir còpies
3. millorar el programa i de distribuir-lo de nou amb les millores realitzades**

* Debian Free Software Guidelines → Open Source Definition

** L'accés al codi font és un requisit.

Obres culturals lliures*

Quatre Llibertats asseguren el dret a qualsevol per:

0. Fer servir l'obra i gaudir dels beneficis de fer-ho
1. Estudiar l'obra i aplicar els coneixements adquirits
2. Redistribuir còpies, totals o parcials, de la informació o de l'expressió
3. Fer canvis o millores i redistribuir les obres derivades

* freedomdefined.org



El procomú digital

És un sistema de recursos comunitari caracteritzat per:

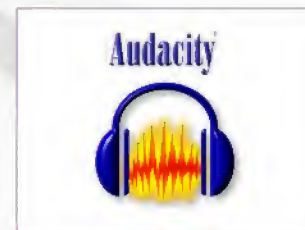
- Autogestió (~ governança comunal)
- Pertinença accessible (~ comunitats en xarxa)
- Coneixement *compartit*
- Integrants tenen dret a l'ús, la contribució, la participació i la bifurcació (~ replicar)

La possibilitat de bifurcació és garantia dels altres drets i reforça la continuïtat

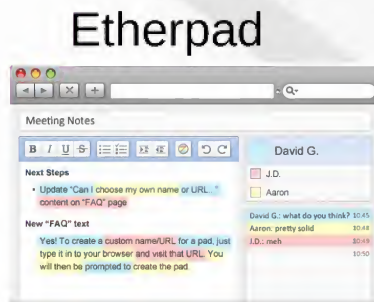
moneda
social i
cripto



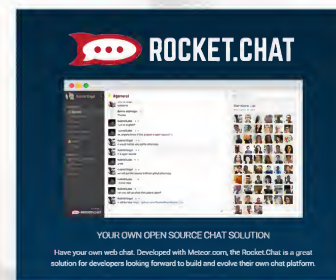
gestió ERP,
edició video, 3D



apps
col·la-
borat-
ius



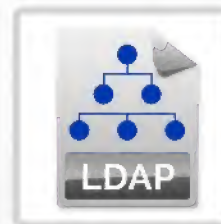
Etherpad



ofimatica

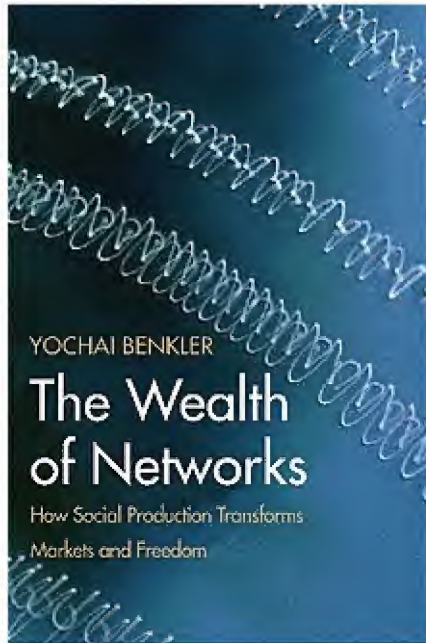


sistemes
operatius
i bbdd



https://en.wikipedia.org/wiki/Portal:Free_and_open-source_software

Producció entre iguals (p2p)



Yochai Benkler, CC BY-NC-SA



Foto by Joi Ito, CC BY

- Producció p2p com un tercer model
- Internet redueix els costos de transacció de la col·laboració
- CBPP: Commons-based Peer Production

Economia basada en el procomú

Basada en el **bé comunal** (per **compartir**)
enlloc de la **mercaderia** (per **vendre**)

Se'n deriva la forma en que s'organitza la producció
i la participació de totes les persones implicades,
productores i beneficiàries.

Economia col·laborativa

Es basa en la **col·laboració** entre persones per produir un bé, gestionar un recurs o extreure-ne l'aprofitament.

Fa ús de la **digitalització i les xarxes** per escalar la col·laboració, facilitar la confluència d'afinitats i interessos, donar les eines per treballar conjuntament i donar accés al que es comparteix.

Es desenvolupa paral·lela a la popularització d'**internet**.

Economia col·laborativa

CONSUMPTION

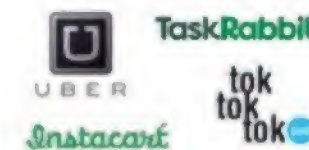
redistribution



product-service



on-demand services



local food systems

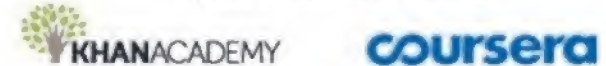


LEARNING

p2p learning



open courses & moocs



PRODUCTION

digital peer production



distributed fabrication (makers)



co-design / co-innovation



FINANCE

p2p funding



p2p payments



p2p insurance



compl. currencies



GOVERNANCE

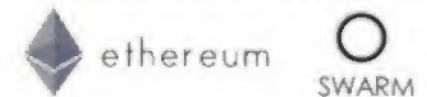
participatory organizations



participatory government



blockchain / DAO



COLLABORATIVE ECONOMY FRAMEWORK V0.1



Albert Cañigueral, Feb '16

All around the world, Building a new web, and a New workplace. Join us!



We are the people behind [WordPress.com](#), [WooCommerce](#), [Jetpack](#), [Simplenote](#), [Longreads](#), [VaultPress](#), [Akismet](#), [Gravatar](#), [Polldaddy](#), [Cloudup](#), and more. We believe in making the web a better place.

We're a distributed company with 506 Automatticians in 50 countries speaking 69 different languages. Our common goal is to democratize publishing so that anyone with a story can tell it, regardless of income, gender, politics, language, or where they live in the world.

We believe in Open Source and the vast majority of our work is available under the GPL.

Come [work with us](#).

One of these things is not like
the other.

	Monthly Uniques (US)	Employees
Google.com	241M	66,575
Yahoo.com	213M	10,400
Facebook.com	206M	14,495
Amazon.com	186M	230,800
Twitter.com	114M	3,898
eBay.com	110M	11,600
WordPress.com	82M	506

Monthly Uniques from comScore.

WE ITERATE

1,555

Deployments made this week

[view graph](#)

WE COMMUNICATE

97,507

Messages sent this week

[view details](#)

WE MAKE PEOPLE HAPPY

29,474

Resolved support tickets this week

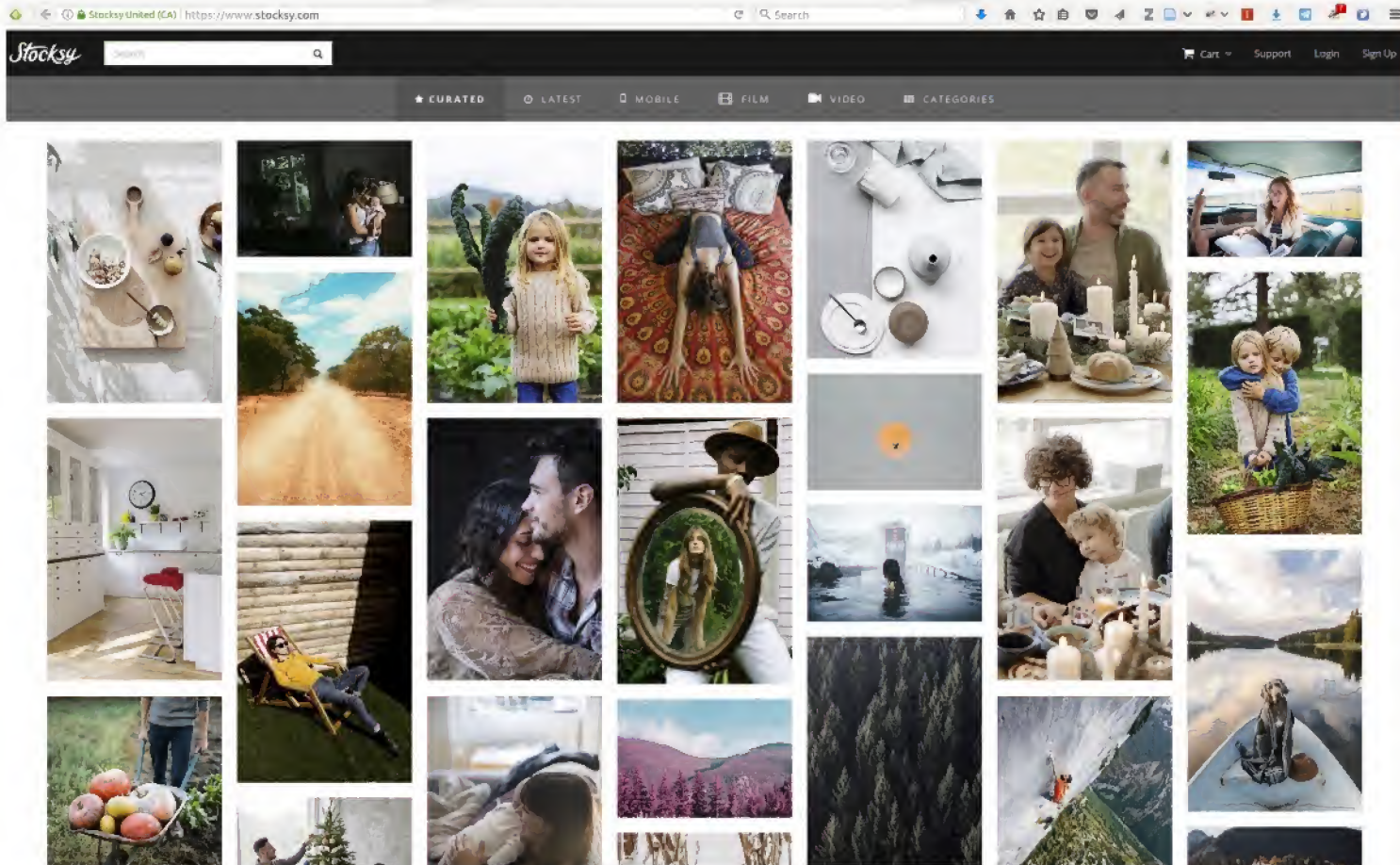
[view graph](#)

We don't make software for free, we make it for freedom.

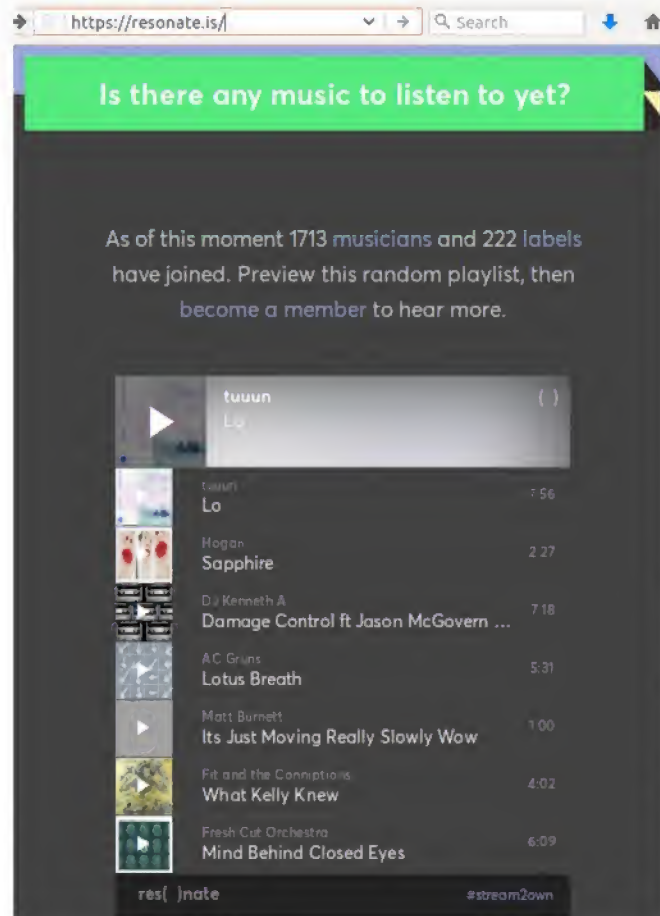
Ecosistema Arduino



Stocksy.com



Resonate.is



<https://resonate.is/in-the-details/>

How is Resonate different?

- No monthly subscription fee – you only pay for what you listen to
- 2.5X more earnings for artists compared to Spotify
- More ways for fans and artists to connect than other platforms
- Changing how we stream, license and purchase music

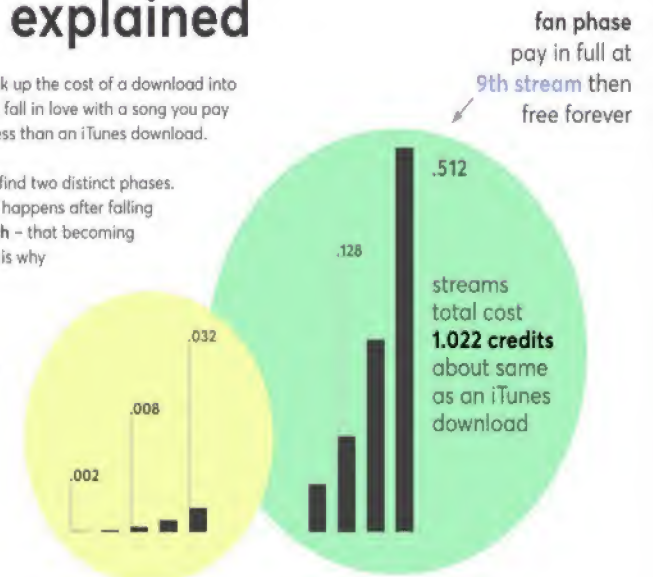
stream to own explained

Stream to own is new but fairly simple – we break up the cost of a download into 9 plays. In the beginning it's super cheap. As you fall in love with a song you pay a bit more to support the artist. In total, a little less than an iTunes download.

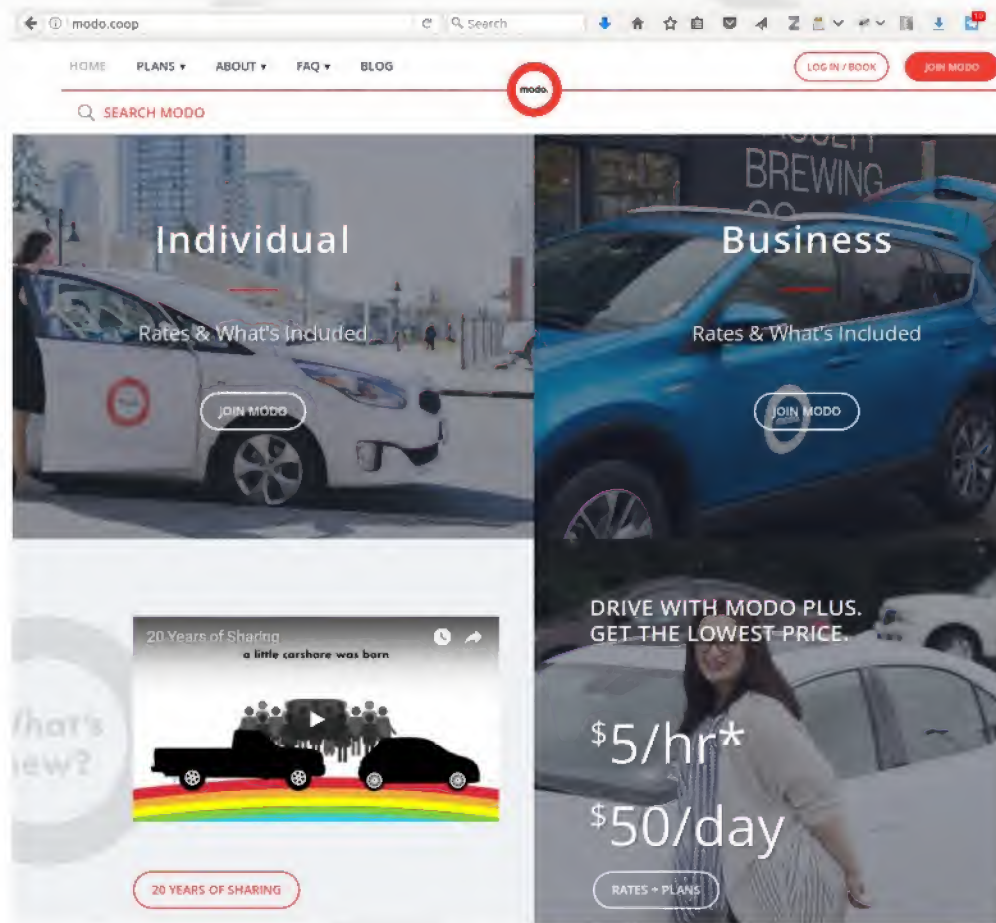
Looking closer at this "pay as you go" model we find two distinct phases. **Discovery** is about exploring new artists and **fan** happens after falling in love with their music. It represents a **basic truth** – that becoming a fan leads to wanting to support the artist. This is why we also refer to it as **stream to support**.

discovery phase →
listen **five times**
for around **7 cents**

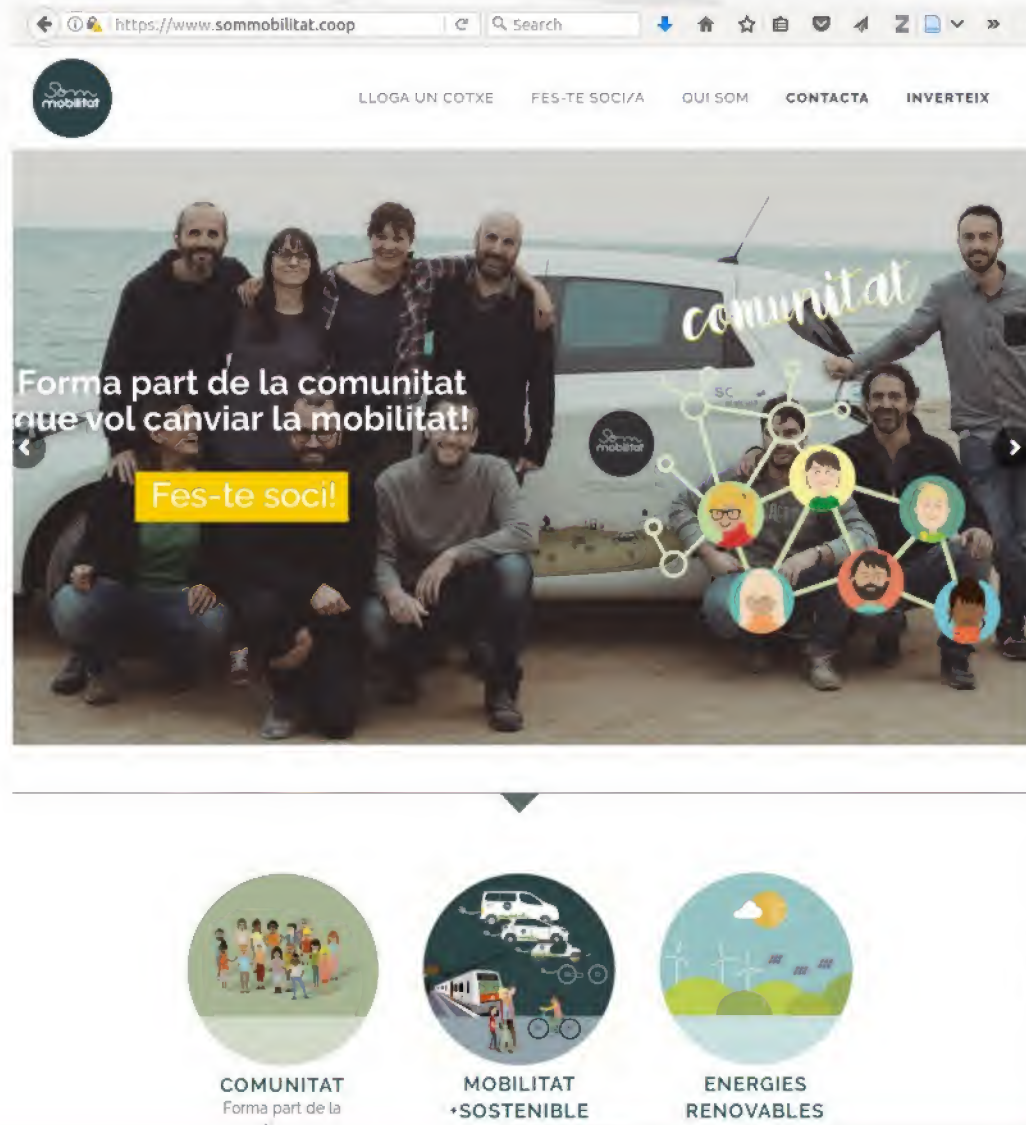
2 hours a day for
around \$2-\$4
per month



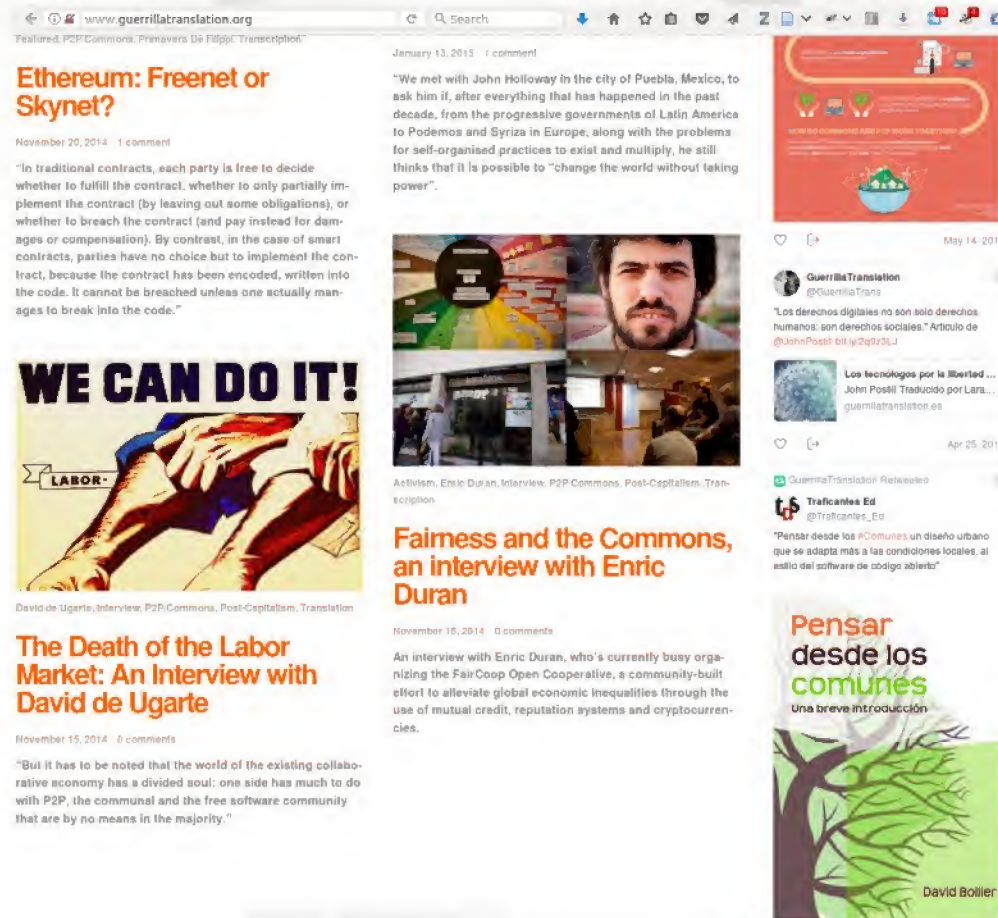
Modo.coop



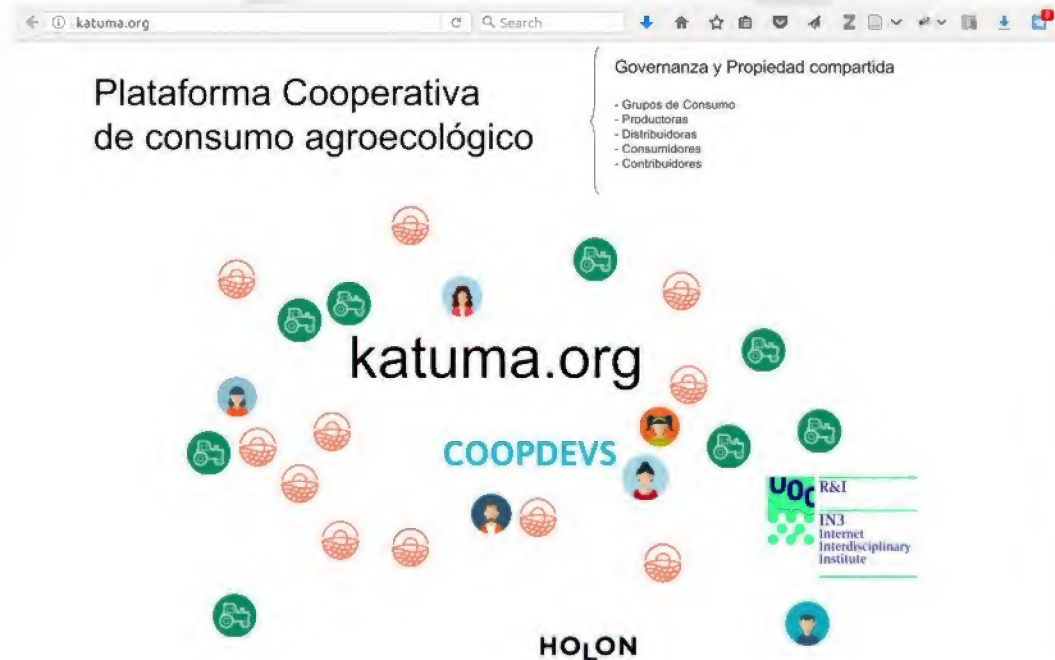
SomMobilitat.coop



Guerilla Translations



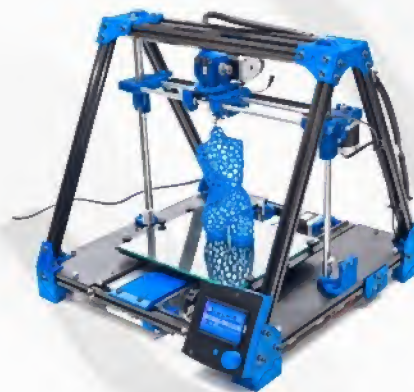
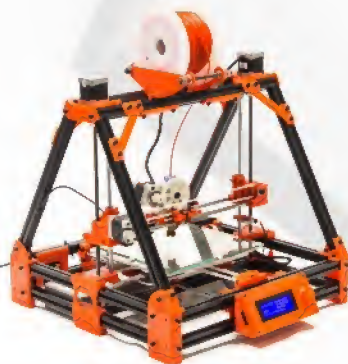
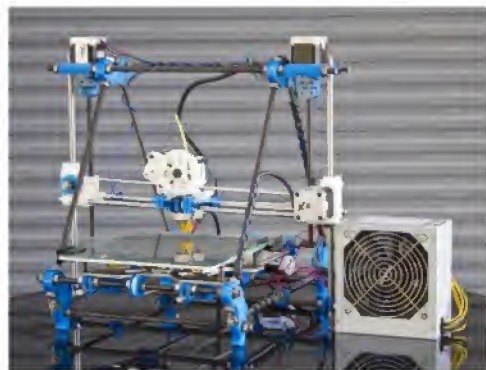
Katuma.org



Katuma is based on free [Open Food Network](#) software, which already applies in Australia, UK, Canada and France among other countries.



RepRapBCN / BCN3D Technologies



2 F O N

(Mendel) PRUSA i2

3 F O N

BCN3D

4 F O N

BCN3D+

5 F O N

BCN3DΣ

RepRap
bcn

RepRapBCN

BCN3D
TECHNOLOGIES

Una economía colaborativa con ...

guifi·net

Red en común



Ciudadanos (voluntarios)



Administraciones públicas

eXO
expansió Xarxa Oberta

girona**fibra**

Expert·Guifi



xta.cat
Xarxes de Telecomunicacions Alternatives

Goufone
la telefonía de casa

priona

ebrecom

EAPA

eticom
som connexió

delinternet

Iguana
COMUNICACIONS

Tic a e

SGElectrònics
TELECOMUNICACIONS & SEGURETAT

altercom²¹
alternatives en comunicació

EAPA

com
aire

qu pàm

guifibages



Código Sur
www.codigo-sur.org

IT+46.s
e

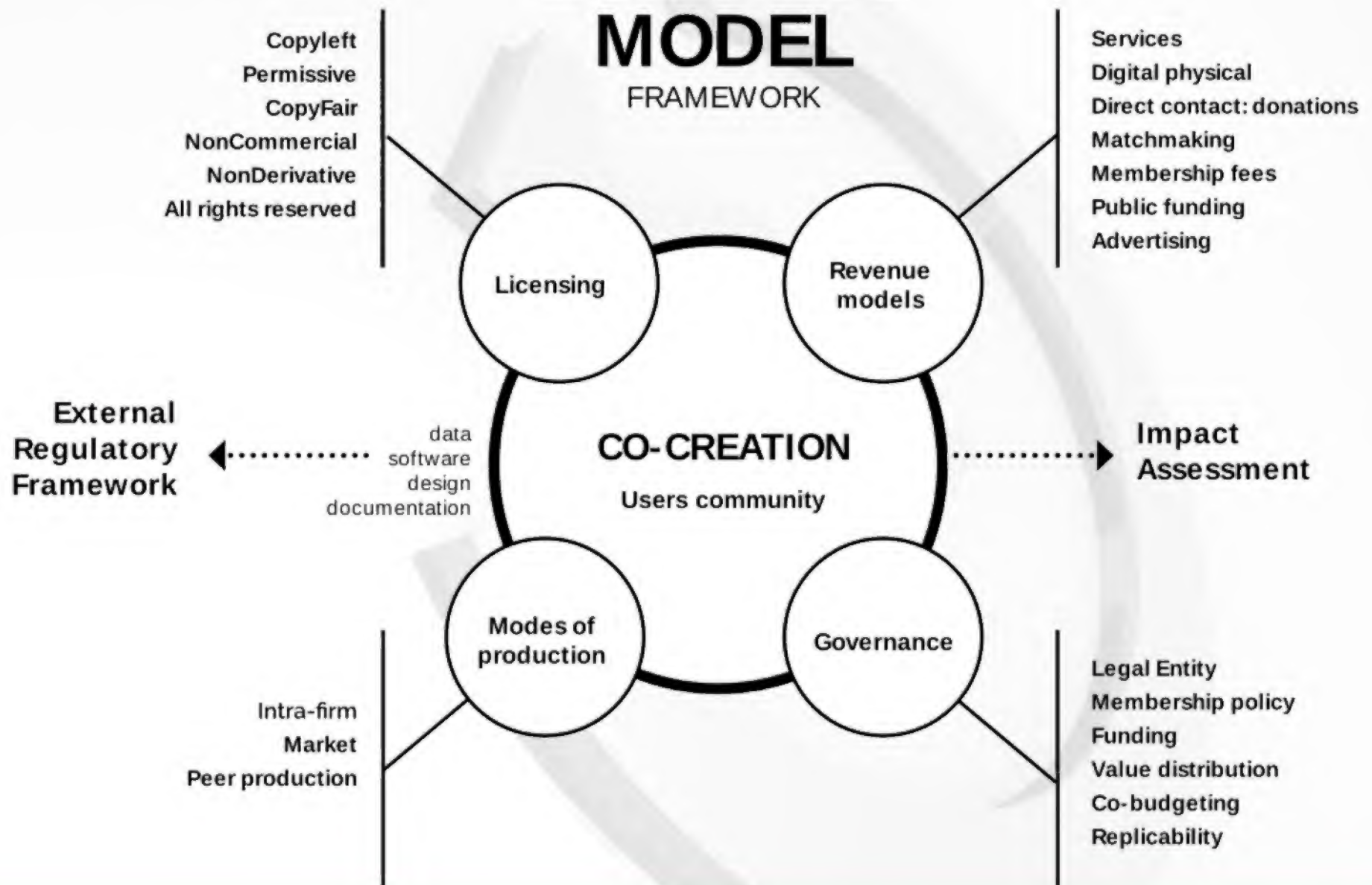
AltUrgellFibra
la fibra òptica de l'alt

PYMES y Organizaciones

Ecosistema: Participantes y Estamentos

guifi·net

COMMONS/ OPEN
**BUSINESS
MODEL**
FRAMEWORK



Comunificar és transformar
alguna cosa en comunal,
fer-la un procomú



Amb col·laboració honesta, relacions
justes i condicions dignes de les persones
que en formen part